

School of Biological and Life sciences

Department of Biological and Life Sciences

Mid Term Examination

Exam Date: 29 Sep 2023

Time : 90 Minutes

Marks : 50

Sem V - C2UE504T - Plant Biotechnology

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

- 1) Provide examples of how totipotency is utilized in tissue culture techniques. K2 (2)
- 2) Differentiate between somatic and zygotic embryogenesis. K1 (3)
- 3) How is micropropagation beneficial for plant propagation? K2 (4)
- 4) Elaborate on the significance of haploids, triploids, and hybrids in plant breeding. K2 (6)
- 5) Provide a comprehensive overview of restriction endonucleases. K3 (6)
- 6) Describe the classification and applications of restriction endonucleases. K3 (9)
- 7) Discuss the importance of germplasm conservation using tissue culture techniques. K4 (8)
- 8) Describe the methods and importance of germplasm conservation through tissue culture. Highlight its role in preserving genetic diversity and safeguarding endangered plant species. K4 (12)

OR

Explain the concept of androgenesis in plant tissue culture. Discuss the methods used to induce androgenesis and its significance in plant breeding and biotechnology. K4 (12)